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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/616,636

07/09/2003

Hiroki Ikeda

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EXAMINER

SINGH, DALZID E

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 11/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,636

Applicant(s)

IKEDA, HIROKI

Examiner

Dalzip Singh

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-21 is directed to non-statutory subject matter.

The specification as originally filed, on paragraph [0046], recites "A system, device, method, signal, media and software for implementing an optical virtual local area network..." The independent claims are directed to such implementation. Reading the claim in its broadest interpretation in support of the specification, the "signal" as described in the specification may be used "for implementing an optical virtual local area network..." Such claims recite nothing but physical characteristics of a form of energy and such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in § 101.

Claims 9 and 10 recites, "A signal...", which is nothing but physical characteristics of a form of energy and such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in § 101.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 7, 8 and 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7, 8 and 15-20 recites, "a computer readable media having computer readable data instruction..." It is unclear what is meant by "*having*" computer readable data instruction. It will be more clearly define if "*having*" is replaced with "encoded with" or "stored with"

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3, 5, 7, 11-13, 15, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagamine (US Patent No. 7,065,040) in view of Maeno (2002/0156919).

Regarding claim 1 (as far as understood in view of the 101 rejection), Nagamine discloses a switching method, for use in a network including at least one WDM optical path, comprising:

deriving a VLAN ID from a received packet; deriving a wavelength value related to a carrier wavelength of the received packet; and using at least both the VLAN ID value and the wavelength value for making an optical VLAN forwarding decision for the packet to provide a VLAN identifying capacity greater than that provided solely by a VLAN ID carried by a frame (see col. 4, lines 31-67; col. 7, lines 60-67 to col. 8, lines 1-20; col. 12, lines 22-52).

Nagamine discloses line identifier (ID) with wavelength data and does not specifically disclose that the wavelength itself contains ID. Maeno teach the use of wavelength numbers or ID in optical network (see paragraph [0035]). Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to provide wavelength with ID as taught by Maeno to the wavelength of Nagamine. One of ordinary skill in the art would have been motivated to do such in order to identify different wavelengths.

Regarding claims 3 and 13, parsing a received packet and determining the presence of a valid VLAN ID field; and performing said two steps of deriving and said step of using only when there is a valid VLAN ID field (see Figs. 9-11 and col. 7, lines 60-67 to col. 8, lines 1-10).

Regarding claims 5 and 12, parsing a received packet and determining the presence of a valid VLAN ID field; determining if a set maximum VLAN ID capacity has been reached; and performing said two steps of deriving and said step of using only when the maximum VLAN ID capacity has been reached (see Figs. 7, 8A and 8B).

Regarding claim 7, it would have been obvious that there exist a computer readable media having computer readable data instructions that are executable for physically implementing the method of claim 1.

Regarding claim 8, it would have been obvious that there exist a computer readable media having computer readable data instructions that are executable for physically implementing the method of claim 2.

Regarding claim 11 (as far as understood in view of the 101 rejection), Nagamine discloses a network node switching device, comprising: means for switching a received packet at least from or to WDM optical paths, means for deriving a VLAN ID from the received packet; and means for making a forwarding decision for the packet based upon at least both a VLAN ID value and a wavelength value to provide a VLAN identifying capacity greater than that provided solely by a VLAN ID carried by a frame (see col. 4, lines 31-67; col. 7, lines 60-67 to col. 8, lines 1-20; col. 12, lines 22-52).

Nagamine discloses line identifier (ID) with wavelength data and does not specifically disclose that assigning a wavelength ID. Maeno teach the use of wavelength numbers or ID in optical network (see paragraph [0035]). Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the

invention was made to provide wavelength with ID as taught by Maeno to the wavelength of Nagamine. One of ordinary skill in the art would have been motivated to do such in order to identify different wavelengths.

Regarding claim 15, Nagamine discloses switch for forwarding a packet having a header with a VLAN ID, for use in controlling a link in a data transmission network to provide a VLAN identifying capacity greater than that provided solely by a VLAN ID carried by a frame, comprising: a port to receive the packet; a port to forward the packet (it would have been obvious that there exist port to receive and transmit the signal); at least one of said ports having optical paths with WDM (see col. 12, lines 22-52); a parsing engine to derive a VLAN ID value based upon a VLAN field in the received packet (see col. 4, lines 31-67; col. 7, lines 60-67 to col. 8, lines 1-20; see Figs. 9-11); a computer; and a computer readable media having computer readable data instructions that are executable by said computer for physically implementing the method of claim 1 (it would have been obvious that the system of Nagamine comprise of computer and computer readable medium to perform such function).

Regarding claim 17, Nagamine discloses a switch for forwarding a packet having a header with a VLAN ID, for use in controlling a link in a data transmission network to provide a VLAN identifying capacity greater than that provided solely by a VLAN ID carried by a frame, comprising: a port to receive the packet; a port to forward the packet (it would have been obvious that there exist port to receive and transmit the signal); at least one of said ports having optical paths with WDM (see col. 12, lines 22-

52); a parsing engine to derive a VLAN ID value based upon a VLAN field in the received packet (see col. 4, lines 31-67; col. 7, lines 60-67 to col. 8, lines 1-20; see Figs. 9-11); a computer; and a computer readable media having computer readable data instructions that are executable by said computer for physically implementing the method of claim 3 (it would have been obvious that the system of Nagamine comprise of computer and computer readable medium to perform such function).

Regarding claim 19, Nagamine discloses switch for forwarding a packet having a header with a VLAN ID, for use in controlling a link in a data transmission network to provide a VLAN identifying capacity greater than that provided solely by a VLAN ID carried by a frame, comprising: a port to receive the packet; a port to forward the packet (it would have been obvious that there exist port to receive and transmit the signal); at least one of said ports having optical paths with WDM (see col. 12, lines 22-52); a parsing engine to derive a VLAN ID value based upon a VLAN field in the received packet (see col. 4, lines 31-67; col. 7, lines 60-67 to col. 8, lines 1-20; see Figs. 9-11); a computer; and a computer readable media having computer readable data instructions that are executable by said computer for physically implementing the method of claim 5 (it would have been obvious that the system of Nagamine comprise of computer and computer readable medium to perform such function).

7. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagamine (US Patent No. 7,065,040).

Regarding claim 21, Nagamine discloses a method of transmitting information, comprising: receiving first and second VLAN (Virtual Local Area Network) tagged frames with both frames; transmitting the first frame over an optical fiber with a first wavelength and of a WDM (Wavelength Division Multiplexing) network; and transmitting the second frame over the optical fiber with a second wavelength different from the first wavelength and over the WDM (Wavelength Division Multiplexing) network (see col. 11, lines 40-67 to col. 12, lines 1-60).

Nagamine differs from the claimed invention in that Nagamine does not disclose that the first and second VLAN (Virtual Local Area Network) tagged frames with both frames having the same VLAN ID. Since the system of Nagamine transmits and receives plurality of virtual identifiers, therefore, it would have been obvious that the system may receive the same virtual ID.

Allowable Subject Matter

8. Claims 2, 4, 6, 8, 14, 16, 18 and 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 101 set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nishio (US Patent No. 6,075,630) is cited to show electro/optical combined type network node control system.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalzid Singh whose telephone number is (571) 272-3029. The examiner can normally be reached on Mon-Fri 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DS

11/20/06

Dalzid Singh